#### **Federal Communications Commission**

# DISTRIBUTED TRANSMISSION SYSTEM CONSTRUCTION PERMIT

#### Licensee/Permittee

University of North Carolina PO Box 14900

Research Triangle Park, NC, 27709

**Call Sign** File Number WUNW 0000036076

Facility ID: 83822 NTSC TSID: 5092 Digital TSID: 5093

This Permit Modifies License File No. 0000035959

Noncommercial Educational

#### **DTS Site Number:1**

Latitude 9999 35-34-07.0 N Longitude 82-54-26.2 W

Antenna Structure Registration Number 1275765	
Transmitter Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	Transmitter Output Power(kW) As required to achieve authorized ERP.
Antenna Coordinates	Antenna Type Directional
Latitude 35-34-7.0 N Longitude 82-54-26.2 W	

Description of Antenna	
Make DIE	
Model TFU-10DSB-B-R	
Antenna Beam Tilt (Degrees Electrical)	Antenna Beam Tilt (Degrees Mechanical @
3	Degrees Azimuth)
	Not Applicable
Major Lobe Directions	Maximum Effective Radiated Power (Average)
230.0	55 kW
	17.40 DBK
Height of Radiated Center Above Ground (Meters)	Height of Radiated Center Above Mean Sea
55	Level (Meters)
	1421.0
Height of Radiated Center Above Average Terrain (Meters)	Overall Height of Antenna Structure Above
504.9	Ground (Meters)
COM	See the registration for this antenna structure.

## **DTS Site Number:2**

Antenna Structure Registration Number 1271385	
Transmitter Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	Transmitter Output Power(kW) As required to achieve authorized ERP.
Antenna Coordinates  Latitude 35-10-36.4 N  Longitude 82-40-53.5 W	Antenna Type Non-Directional
Description of Antenna	
Make ERI Model AL8O-27-E	
Antenna Beam Tilt (Degrees Electrical) 1.75	Antenna Beam Tilt (Degrees Mechanical @ Degrees Azimuth) Not Applicable
Major Lobe Directions N/A	Maximum Effective Radiated Power (Average) 0.90 kW -0.46 DBK
Height of Radiated Center Above Ground (Meters) 45.7	Height of Radiated Center Above Mean Sea Level (Meters) 1192.6
Height of Radiated Center Above Average Terrain (Meters) 429.2	Overall Height of Antenna Structure Above Ground (Meters) See the registration for this antenna structure.

### **DTS Site Number:3**

Antenna Structure Registration Number	
Transmitter	Transmitter Output Power(kW)
Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the	As required to achieve authorized ERP.
Commission's Rules.	
Antenna Coordinates	Antenna Type
Latitude 36-02-00.4 N	Non-Directional
<b>Longitude</b> 82-12-08.5 W	
Description of Antenna	
Make ERI	
Model AL8O-27-E	
Antenna Beam Tilt (Degrees Electrical)	Antenna Beam Tilt (Degrees Mechanical @
1.75	Degrees Azimuth)
	Not Applicable
Major Lobe Directions	Maximum Effective Radiated Power (Average)
N/A	0.94 kW
	-0.27 DBK
Height of Radiated Center Above Ground (Meters)	Height of Radiated Center Above Mean Sea
33	Level (Meters)
	1276
Height of Radiated Center Above Average Terrain (Meters)	Overall Height of Antenna Structure Above
320.7	Ground (Meters)
	35

#### **DTS Site Number:4**

Antenna Structure Registration Number 1299624	
Transmitter	Transmitter Output Power(kW)
Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the	As required to achieve authorized ERP.
Commission's Rules.	
Antenna Coordinates	Antenna Type
Latitude 35-7-56.7 N	Non-Directional
Longitude 82-59-0.6 W	
Description of Antenna	
Make ERI	
Model AL8O-27-E	
Antenna Beam Tilt (Degrees Electrical)	Antenna Beam Tilt (Degrees Mechanical @
1.75	Degrees Azimuth)
	Not Applicable

Major Lobe Directions N/A	Maximum Effective Radiated Power (Average) 0.88 kW -0.56 DBK
Height of Radiated Center Above Ground (Meters) 51.8	Height of Radiated Center Above Mean Sea Level (Meters) 1505.6
Height of Radiated Center Above Average Terrain (Meters) 570.2	Overall Height of Antenna Structure Above Ground (Meters) See the registration for this antenna structure.

### **DTS Site Number:5**

Antenna Structure Registration Number 1280547	
Transmitter Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	Transmitter Output Power(kW) As required to achieve authorized ERP.
Antenna Coordinates  Latitude 35-24-47.0 N  Longitude 83-30-2.0 W	Antenna Type Non-Directional
Description of Antenna  Make ERI  Model AL8O-27-E	
Antenna Beam Tilt (Degrees Electrical) 1.75	Antenna Beam Tilt (Degrees Mechanical @ Degrees Azimuth) Not Applicable
Major Lobe Directions N/A	Maximum Effective Radiated Power (Average) 0.88 kW -0.56 DBK
Height of Radiated Center Above Ground (Meters) 51.8	Height of Radiated Center Above Mean Sea Level (Meters) 1058.8
Height of Radiated Center Above Average Terrain (Meters) 298.7	Overall Height of Antenna Structure Above Ground (Meters) See the registration for this antenna structure.

### **DTS Site Number:6**

Antenna Structure Registration Number	
Transmitter	Transmitter Output Power(kW)
Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	As required to achieve authorized ERP.

Antenna Coordinates	Antenna Type
Latitude 35-18-12.4 N	Non-Directional
<b>Longitude</b> 83-10-39.5 W	
Description of Antenna	
Make ERI	
Model AL8O-27-E	
Antenna Beam Tilt (Degrees Electrical)	Antenna Beam Tilt (Degrees Mechanical @
1.75	Degrees Azimuth)
	Not Applicable
Major Lobe Directions	Maximum Effective Radiated Power (Average)
N/A	0.94 kW
	-0.27 DBK
Height of Radiated Center Above Ground (Meters)	Height of Radiated Center Above Mean Sea
33	Level (Meters)
	810
Height of Radiated Center Above Average Terrain (Meters)	Overall Height of Antenna Structure Above
-146.0	Ground (Meters)
	35.4

#### Waivers/Special Conditions

• The grant of this construction permit is subject to the condition that, with ample time before commencing operation, you make a good faith effort to identify and notify health care facilities (e.g., hospitals, nursing homes, see 47 CFR 15.242(a)(1)) within your service area potentially affected by your DTV operations. Contact with state and/or local hospital associations and local governmental health care licensing authorities may prove helpful in this process. During this pre-broadcast period, you must provide all notified entities with relevant technical details of your operation, such as DTV channel, targeted on-air date, effective radiated power, antenna location, and antenna height. You are required to place in the stations public inspection file documentation of the notifications and contacts made and you may not commence operations until good faith efforts have been made to notify affected health care facilities. During this pre-broadcast period and for up to twenty (20) days after commencing operations, should you become aware of any instances of medical devices malfunctioning or that such devices are likely to malfunction due to your DTV operations, you must cooperate with the health care facility so that it is afforded a reasonable opportunity to resolve the interference problem. At such time as all provisions of this condition have been fulfilled, and either upon the expiration of twenty (20) days following commencement of operations or when all known interference problems have been resolved, whichever is later, this condition lapses.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

